

Transportation's Role in Economic Development: Supporting Job Creation & Supply Chain Management

State of Michigan
House Commerce Committee
March 13, 2012

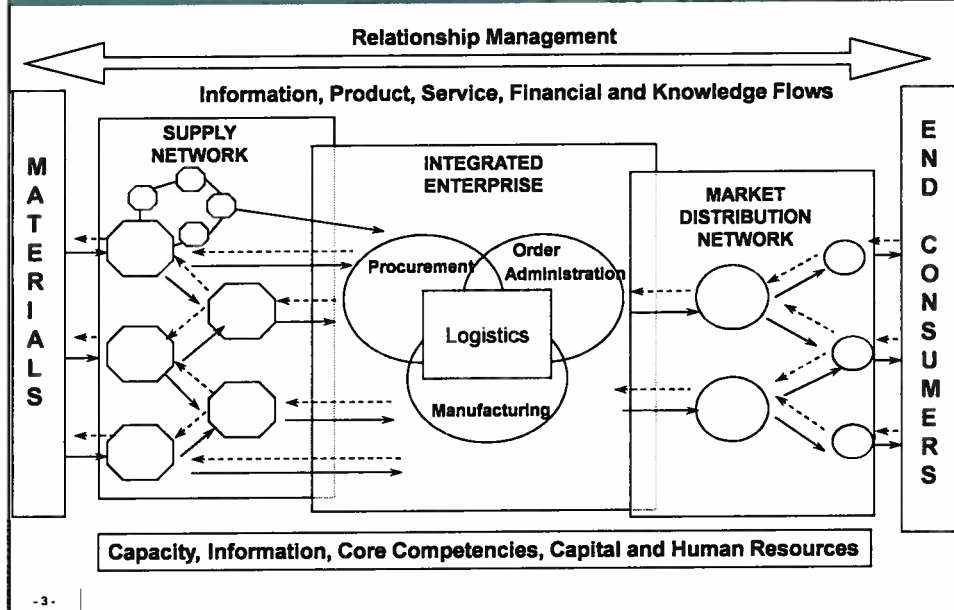
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Supply Chain "Rights"

- Right product
- Right quantity
- Right place
- Right time
- Right packaging
- Right price
- Right quality
- Right information

The Integrated Supply Chain Model



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Common SCM Definition Themes

- Focus on end-consumer
- Integration within the firm and across supply chain partners
- Requires execution of sequence of functions
- Operates within resource constraints

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Where the Money Is

- Supply-chain generally accounts for between 60% and 90% of all company costs¹
- A 2% improvement in process efficiency for supply-chain processes has 30,000% - 50,000% the impact of a 2% improvement in efficiency for... IT... HR... Finance¹... Sales...
- Any surprise most Process Methodologies or techniques had their origin primarily in Supply-Chain Management?
 - Six-Sigma Lean BPR ERP ISO MRP-II TQM...

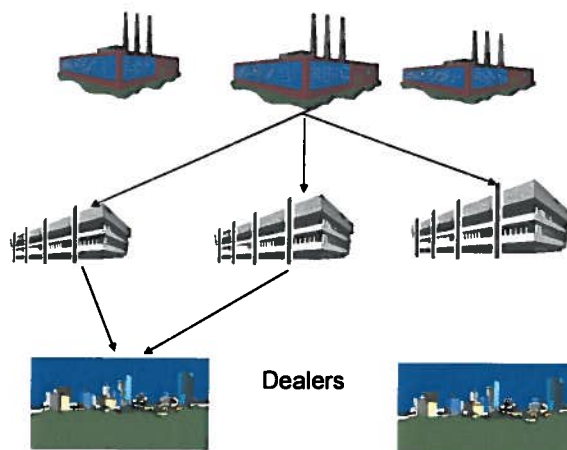
Fortune-10 Company Supply-Chain Cost % Total Costs²

GM	Ford	Conoco	Wal-Mart	Chevron	IBM	Exxon	GE	Citi ¹	AIG ¹
94%	93%	90%	90%	88%	77%	75%	63%	0%	0%

¹ Exclusive of Financial Services companies

² Source: Hoovers 2006 Financial Data, Supply-Chain Council 2006 SCM Benchmark data on SCM cost for discrete & process industries

End-to-End Integrated Supply Chain Total Cost Analysis Approach



Cost Components

Sourcing +
Production +
Handling +
Inbound Transport +
DC Handling +
Inventory +
Customer Transport +
Duties and Taxes

Total Cost

Supply Chain Value Adds

- Reduced operating cost
- Increased revenue
 - Fill rate
 - Extended offerings
 - Markets
 - Mix
 - Exports
 - Product/Service/Solution
 - Customization
 - New product introduction
- Asset utilization
 - Facilities
 - Production
 - Transportation

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Private Sector Supply Chain Design Questions

- Manufacturing plant location decisions
- Number and location of distribution centers
- Customers served from each distribution center
- Products stocked at each location
- Exports to international markets
- Service providers used to meet customer demand
- Value-added services to meet market requirements

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Why the Public Sector Should Focus on SCM?

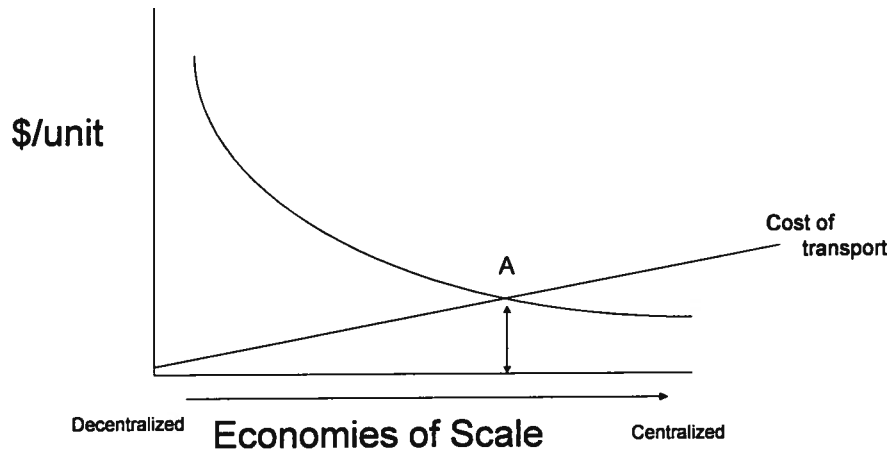
- Produces jobs
- Lowers cost for Great Lake Region's existing industries
- Broadens markets for new industry
- Utilizes existing infrastructure investments



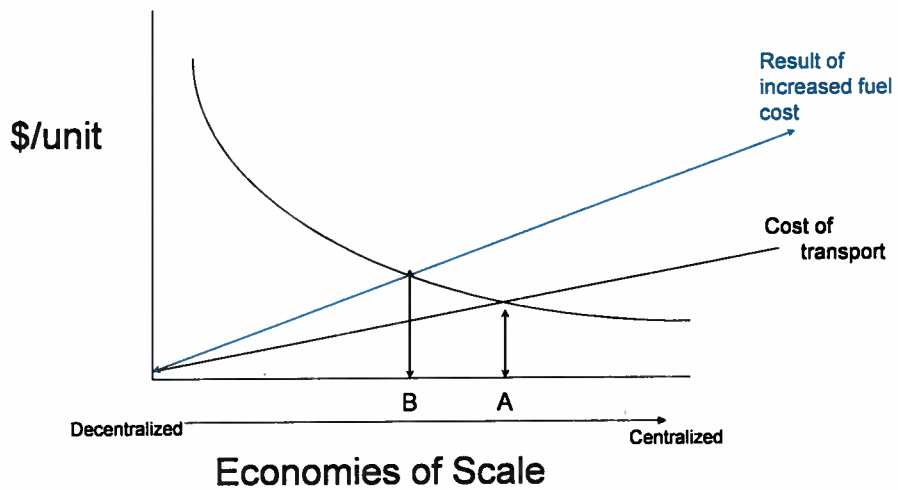
Supply Chain Dynamics are Changing

- Firms looking for more balance between scale and reliability.
- Infrastructure congestion is becoming increasingly problematic.
- Increased energy cost will shift supply chain mode selection and design.
- Increased emphasis on the importance of being able to quantify the value proposition related to supply chain changes.

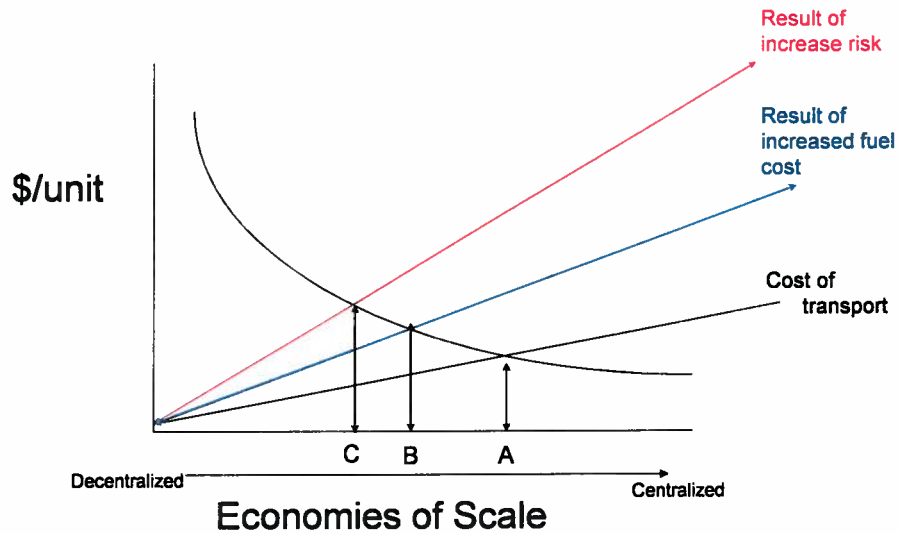
Changing Dynamics of Supply Chain Design



Changing Dynamics of Supply Chain Design



Changing Dynamics of Supply Chain Design



Michigan Public Sector Roles in SCM

- Support the growth cross-border trade
- Provide educational opportunities to develop the human capital to design, guide and operate a 21st Century global supply chain hub
- Improve transportation infrastructure
- Ensure border crossing security
- Encourage the growth of jobs in the state

Cities with SCM Capabilities

City	Supply Chain Management Capabilities
Memphis, TN	<ul style="list-style-type: none"> Memphis was one of the first supply chain hubs building on its location as the global hub for Federal Express. The FedEx hub has attracted storage and processing facilities that can take advantage of the inbound and outbound movement of air freight. The educational needs of the region are supported strongly by programs at the University of Memphis.
Louisville, KY	<ul style="list-style-type: none"> Louisville was the second major supply chain hub building on its location as the global hub for United Parcel Service. The UPS hub has attracted storage and processing facilities that can take advantage of the inbound and outbound movement of air freight. The educational needs of the region are supported strongly by programs at the University of Louisville.
Kansas City, MO	<ul style="list-style-type: none"> Created an inter-modal hub including rail, motor, and air to facilitate movement and processing of goods throughout the central Midwest. The initiatives include a strong focus on education.
Chicago, IL	<ul style="list-style-type: none"> Chicago has always been a major manufacturing and distribution center due to its proximity to inter-modal transportation services and its population density. While this will continue, Chicago locations are being challenged by other sites due to increasing congestion.
Columbus, OH	<ul style="list-style-type: none"> Building on the Rickenbacker Airport and other inter-modal capabilities, Columbus has established itself as a distribution hub for fashion, electronics, and appliances. The initiatives include a strong focus on education.
Indianapolis, IN	<ul style="list-style-type: none"> Indianapolis is positioning itself as a less congested alternative for Chicago as a distribution hub particularly for electronics and parts. Indianapolis is focusing on cross-country rail and truck movements. This initiative has some focus on education but not to the degree that Memphis, Louisville, Kansas City, and Columbus have.
Great Lakes Region	<ul style="list-style-type: none"> Why not us?

Great Lakes Region is a hub... for a particular chain





Target Industries: Cluster Descriptors

- **HEAVY:** Heavy Manufacturing and industrial cluster attracted to hub for resource efficiency and differentiation
 - Automotive renewal
 - Alternative energy
 - Carbon fiber manufacturing
 - Chemical processing
 - Defense
 - Electronics – industrial
- **LIGHT:** Light Manufacturing and industrial cluster attracted to hub for resource efficiency and differentiation
 - Food processing
 - Medical technologies
 - Water technologies
- **DISTRIBUTION:** Warehousing and consumer based industry attracted to hub market location for distribution and value-added services
 - Beverage and alcohol distribution
 - Retail importing and value add
 - Waste management
- **AGRICULTURE:** Export of commodities grown and processed within region

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Summary of Enhanced Economic Activity

Industry Cluster	Increase in Economic Development	Number of New Jobs Created
Heavy Manufacturing	\$5 Billion	41,200 New Jobs
Light Manufacturing and Distribution	\$5.5 Billion	25,500 New Jobs
TOTAL	Over \$10 Billion	Over 66,000 New Jobs

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Strengths to Emphasize To Enable Economic Growth

- Airport
- Supply chain skilled labor
- Interstate highways
- International trade corridor
- Border crossing facilities
- Railroad network
- Understand global landscape
- Identifying strategic corridors
- Hub operations cost



Largest Gaps in Performance

- Highest priority capabilities with the largest gaps in performance include:
 - Use of marketing
 - Streamlined government
 - Strategic transportation plan
 - Leveraging business partnerships
 - Community involvement

Major Obstacles to Implementation

- Major obstacles to implementation include:
 - Cultural mindset
 - Infrastructure funding
 - Regional collaboration
 - Global perception of region

Why is Collaboration and Communication Necessary to Increase Scale and Attractiveness?

- Reduces likelihood of redundant infrastructure investments
- Increases potential for critical scale through effective investments, borrowing, and grants
- Communicates the message in context of supply chain performance benefits to the firm rather than economic development benefits for the region
- Communicates a common, consistent message to potential clients

The Bottom Line !

- Opportunity Assessment has re-enforced the economic development potential for the Hub
 - 66,000 new jobs created
 - Doing nothing may run the risk of additional jobs lost
- Multi-state and multi-nation collaboration will be critical to project success
- Each of us will play a key role to assure 66,000 new jobs are created.....starting today !